[ELECTRON EMITTER INCLUDING CARBON NANOTUBES AND ITS APPLICATION IN GAS DISCHARGE DEVICES]

Abstract of Disclosure

An electron emitter includes a coating layer of a mixture of carbon nanotubes and alkali-earth metal oxides on an electrically conducting structure. The preferred carbon nanotubes are those having a diameter less than about 200 nm. A substantial portion of electron emission is liberated from the carbon nanotubes, thus lessening the requirement on the alkali-earth oxides. Such an electron emitter is advantageously used in gas discharge devices to increase the energy efficiency thereof.

Figures